WRITING BINARY FORMULAS IV

Rule 1 Write the **symbol** for the first element then its numerical **subscript,** write the **symbol** for the second element then its numerical **subscript.**

Rule 2 A subscript of one (1) is not written.

Note: Formulas and names are written in the same order.

Examples: bromine trifluoride is BrF_3
dichlorine heptoxide is Cl_2O_7

You should be able to write formulas for these compounds:

a. nitrogen trifluoride

b. carbon tetrachloride

c. oxygen difluoride

d. tetrasulfur dinitride

e. chlorine dioxide

f. chlorine fluoride

g. dinitrogen disulfide

h. trisulfur dibromide

i. tetraphosphorus decoxide

j. iodine heptafluoride

k. sulfur hexafluoride

l. tetraphosphorus heptasulfide

m. diboron trioxide

n. phosphorus pentachloride

o. tetraiodine nonoxide

p. silicon dioxide

Answers are on the other side.

NAMING BINARY COMPOUNDS IV

Nonmetal-nonmetal binary compounds are named using Greek prefixes to specify the number of atoms of each element in the molecule.

Rule 1 Give a **prefix** indicating the subscript on the first element, then the first **element name**, then the **prefix** indicating the subscript on the second element, then the second **element name with "ide" ending.**

Rule 2 Use no prefix for a subscript of one (1) except use "mono" in special cases, especially to avoid ambiguity or confusion.

Rule 3 Use common names for **water**, H_2O, **ammonia**, NH_3, **methane**, CH_4, etc.

The prefixes are:

1	mono	5	penta	9	nona
2	di	6	hexa	10	deca
3	tri	7	hepta		
4	tetra	8	octa		

Note: The "a" in a prefix before "oxide" may be dropped.

Examples: CO_2 is named **carbon dioxide.**
N_2O is named **dinitrogen oxide**
N_2O_5 is named **dinitrogen pentoxide** or **dinitrogen pentaoxide**

You should be able to name the following compounds:

a. NF_3
b. CCl_4
c. OF_2
d. S_4N_2
e. ClO_2
f. ClF
g. N_2S_2
h. S_3Br_2
i. P_4O_{10}
j. IF_7
k. SF_6
l. P_4S_7
m. B_2O_3
n. PCl_5
o. I_4O_9
p. SiO_2

Names are on the other side.